

Proposal to Encode Kahnotation

Matthew Dougherty

Sam Katz







Sam Weber

Tap dancing is a unique form of dance because its actions are intended to produce a variety of percussive sounds. Tap dancers frequently perform as musicians in an ensemble; sometimes as vocalists or instrumentalists. These percussive sounds are integral to the musical performance, and on occasion the rationale for the song's composition.













Feet and hand movements are precisely timed in a fashion similar to drummers, creating unique percussive sounds through intricate body movements. A dance movement can produce multiple sounds. The method of percussion also creates timbre, variability of impulse, attack, and decay. An example comparison would be a drummer's "rim shot" and the Tap dancers' "Stomp".













Kahnotation was developed in the 1930's by Stanley Kahn and was published in 1951, making it the second oldest dance notation in continual use. Stanley Kahn is considered a legend in the Tap community, recognized as such by the International Tap Association for having created Kahnotation and for having taught Tap dance for sixty years until his death in 1995. The notation has been used in training and choreography for decades. Some of the Kahnotation symbols are identical to common music notations (e.g., repeats, fermata) and are not duplicated in this proposal. Attached are two routines ("Shim Sham" and "EE") demonstrating Kahnotation composed in musical script.






Enabled though standard musical notation practices, the inclusion of Kahnotation into musicXML will enhance student training and choreography, promoting a sustainable framework for archiving. The use of common musical notation software will encourage more precise and effective written communication between Tap performers and other members of the musical ensemble.













#	<i>symbol</i>	<i>symbol name</i>	<i>sound & action</i>		Weight change	alternate names
1		Step	1	The ball of the foot strikes the floor from any direction, as in walking. The single barb appearing at the RIGHT of the vertical line indicates there is a TOTAL change of weight.	Y	
2		Tap	1	The ball of the foot strikes the floor from any direction, as in walking. The barb LEFT of the vertical line indicates there is no change of weight from one foot to the other.	N	touch
3		Hop	1	Hopping on one foot, and landing on the ball of the same foot.	N	
4		Leap	1	Leaping from one foot, and landing on the ball of the other foot.	Y	
5		Jump-together	1	Jumping from the ball of one or both feet, and landing on both feet together, usually on the balls of both feet.	split weight	
6		Jump-apart	1	Jumping from the ball of one or both feet, and landing on both feet apart usually on the balls of both feet.	split weight	











7		Brush-forward	1	The sound is made by striking the floor with the ball of the foot with a forward motion. May be a short movement from the knee or a longer motion from the hip.	N	front-brush
8		Brush-backward	1	The sound is made by striking the floor with the ball of the foot with a backward motion.	N	back-brush; brush-back; spank. snap (if started with a heel touching the floor and the toe raised.).
9		Grace-tap	1	Diacritic indicating an extra sound produced as a snap of the supporting foot when executing a leap or a hop.	N	pick-up; grab-off
10		Flat		Superscript diacritic indicates use of a flat foot (ball and heel).		
11		Heel		Superscript diacritic indicates use of a heel.		
12		Toe		Superscript diacritic indicates use of tip of a toe.		
13		Knee-outward		Superscript diacritic indicates the knee is bent outward.		
14		Knee-inward		Superscript diacritic indicates the knee is bent inward.		
15		Scrape		Superscript diacritic indicating the sound occurs from the inner or outer edge of the ball & toe, or with either edge of a heel.		
16		Trench	0-1	This is a leap done in side-backward direction keeping the toe of the foot on the floor or riding the tap to a full extension. When properly done the landing foot will cross over where the sliding foot originally started, leaving an imaginary X on the floor.	Y	
17		Flea-hop	0-1	Leap in any direction, with the weight bearing foot remaining in contact with the floor. A sliding movement on one foot while the other foot is in the air; executed from side to side or front to back: Slide from one foot to the other.	Y	





18		Flea-tap	0-1	Hop in any direction, with the weight bearing foot remaining in contact with the floor. A sliding movement on one foot while the other foot is in the air; executed from side to side or front to back: Slide from one foot to the other.	N	
19		Draw-step	0-1	Movement of one foot over the floor from an open position to a closed.	Y	
20		Draw-tap	0-1	Movement of one foot over the floor from an open position to a closed.	N	
21		Slide-step	0-1	Enlarged movement of one foot over the floor in any direction.	Y	
22		Slide-tap	0-1	Enlarged movement of one foot over the floor in any direction.	N	
23		Heel-drop	1	The sound occurs by dropping the heel to the floor.	must be indicated	heel
24		Toe-drop	1	The sound occurs by dropping the ball of the foot to the floor. Usually occurs as a lever action with the weight on the heel.	must be indicated	
25		Clap	1	The sound occurs by hand clapping or hand slapping.	N	
26		Snap	1	The sound occurs by the snapping of the fingers of one hand.	N	
27		Double-snap	2	The two sounds occur by the snapping of the fingers of both hands.	N	
28		Heel-click	1	The sound occurs by striking the heels. Usually with the weight on the balls of both feet, twisting inward to strike heels.	split weight	heel-clip; bells, when done in the air.
29		Toe-click	1	The sound occurs when the inside edge of the toes striking each other. Usually with the weight on both heels, twisting inward to strike toes.	split weight	toe-clip

30		Left-cross	1	The sound occurs when the LEFT-heel crosses and strikes the RIGHT-toe.	N	toe clip; heel strike, left cross forward
31		Right-cross	1	The sound occurs when the RIGHT-heel crosses and strikes the LEFT- toe.	N	toe clip; heel strike, right cross forward
32		Left-catch	1	The sound occurs when the LEFT-toe strikes the RIGHT-heel from a crossed back position.	N	left trip; toe strike, left cross backward
33		Right-catch	1	The sound occurs when the RIGHT-toe strikes the LEFT-heel from a crossed back position.	N	right trip; toe strike, right cross backward
34		Left-toe-strike	1	The sound occurs when the LEFT-toe strikes the floor in a side motion.	N	
35		Right-toe-strike	1	The sound occurs when the RIGHT-toe strikes the floor in a side motion.	N	
36		Stamp	1	Stepping on the flat foot.	Y	flat-step, sometimes inverted with stomp
37		Heel-step	1	Stepping only on the heel of the foot.	Y	
38		Toe-step	1	Stepping only onto the tip of the toe.	Y	toe stand, especially if done on both feet.
39		Ball-change	2	Step onto the ball of one foot, then quickly change to the ball change of the other foot.	Y	
40		Step-stamp	2	Step onto the ball of one foot, then quickly stamp on the other foot.	Y	ball-flat
41		Stamp-stamp	2	Stamp on one foot, then quickly stamp on the other foot.	Y	

42		Heel-change	2	Step onto the heel of one foot, then quickly change to the ball of the other foot.	Y	
43		Stomp	1	The flat of the foot strikes the floor.	N	flat-tap, sometimes inverted with stamp
44		Heel-tap	1	The heel of the foot strikes the floor.	N	heel-dig, dig
45		Toe-tap	1	The tip of the toe of the strikes the floor, usually at the rear.	N	toe-tip, hit, toe-hit
46		Ball-dig	1	A tap with more force. The knee of the striking foot is bent inward.	N	touch
47		Slam	1	The sole of the shoe strikes the floor. The knee of the supporting leg remains bent while the free knee is straight. Usually executed with a very relaxed action.	usually no	
48		Flam	3	Insert Heel-tap between the Brush-forward and the Slam.	usually yes	closed third; bomb
49		Grace-tap-hop	2	Hopping slightly backward with a Grace-tap. The second sound will be louder and clearer.	N	single pull back, pickup
50		Grace-tap-change	2	Leap with Grace-tap during weight change.	Y	pickup change, leap with a pull back
51		Leap-flat-foot	1	Leaping from one foot, landing flat on the other foot.	Y	
52		Grace-tap-stamp	2	Leap-Flat-Foot with Grace-tap during weight change.	Y	
53		Leap-heel-click	2	A leap with a heels clicking in the air during weight change.	Y	

54		Flap	2	The first sound is a Brush-forward, followed by a step.	Y	
55		Rip	3	Combine a Grace-tap-change and a Flap into one move. The Flap motion is forward, the Grace-tap motion is backward. The heels do not touch the floor.	Y	
56		Flap-step	3	Combine a Flap and a Ball-change. There are two changes of weight.	Y	brush-ballchange, flap change
57		Back-flap	2	The first sound is a Brush-backward, followed quickly by a Step.	Y	brush-step
58		Slap	2	The first sound is a Brush-forward, followed by a Tap.	N	flap with no weight
59		Back-rip	3	A Brush-backward, quickly followed by a Grace-tap-change.	Y	
60		Stomp-brush	1	The flat of the foot strikes the floor as in a Stomp, brushing forward.	N	stomp
61		Scuff	1	The heel of the foot strikes the floor in a forward motion. This may be a short movement from the knee, or a longer movement from the hip.	N	
62		Chug	1	The weight bearing foot slides forward onto the heel. The weight-bearing knee is bent. May be done with both heels striking the floor.	Maybe-either Y or No equally possible	buck
63		Push	0-1	Similar to a Chug, but the heel does not strike the floor. The weight remains on the toe.	Maybe-either Y or No equally possible	
64		Zink	0-1	One foot slides forward, the other executes a Chug.	N	
65		Riff	2	A Brush-forward followed by a scuff.	N	2-count-riff

66		Back-riff	2	The first sound is the heel grazing the floor, followed by the toe executing a Brush-back.	N	
67		Back-chug	1	The weight-bearing heel slides backward onto the heel.	N	
68		Pull	1	From a bent knee position on the supporting foot, pull backward onto the ball of the foot. A light sound may be produced.	N	
69		Zank	1	One foot slides backward, the other executes a Chug.	N	
70		Shuffle	2	The sounds produced are a Brush-forward and a Brush-backward during one musical beat. The motion of the knee is "down-up" with the ankle totally relaxed.	N	
71		Scuffle	2	The first sound is a Heel-tap or Scuff, followed with a Brush-back.	N	
72		Riffle	3	A Shuffle with a Heel-tap between the Brush-forward and Brush-back. A very relaxed ankle is essential. A tap combination of a riff and a back brush.	N	loose third
73		Ripple	3	This is a Shuffle done to the side with an extremely relaxed ankle allowing a third brush to occur. This makes a three-sounded Shuffle without any heels.	N	
74		Wing	3	A Hop, with two sounds added by brushing outward on the side of the supporting foot; then inward with the tip of the shoe; then landing on the ball of the same foot. The function of the free leg is to provide lift and balance.	N	single wing/one foot wing
75		Wing-change	3	A Leap, with two sounds added by brushing outward on the side of the supporting foot; then inward with the tip of the shoe; then landing on the ball of the other foot. The function of the free leg is to provide lift and balance.	Y	swap-wings
76		Double-wing	3	A Wing done with both feet at the same time, resulting in three sounds on both feet done simultaneously. Double-wings are done only on the ball of the foot.	split weight	

77		Over-the-top	2	Step or Leap onto one foot, across in back of the other, then Hop over the front foot landing on the takeoff foot.	Y	
78		Over-the-top-tap	3	Over-the-top with a Toe-tap occurring during the Hop over the foot.	Y	jump-overs, glides
79	L	left-foot		Superscript diacritic indicating which foot.		
80	R	right-foot		Superscript diacritic indicating which foot.		
81		left-turn		Turn 360 degrees to the left.		counter-clockwise turn, CCW turn
82		right-turn		Turn 360 degrees to the right.		clockwise turn, CW turn